

Disney's

THE LION KING

A NATURE FUN AND LEARN SERIES

73

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Greetings
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Grapevine

Hi there!

This week's piece by Ostrich reminds me that Grapevine's Annual Party is coming up. Elephant and Hippo will fling themselves into the dancing... until the floor gives way. Crocodile will finish all the food... and then start eyeing up the guests. And Pumbaa will get over-excited and do his impression of Timon sitting on a hedgehog. On second thoughts, perhaps I won't get

Kim

Write to:
Kim,
The Lion King,
PO Box 1,
Hastings, T32 4EL.



SEEING IS BELIEVING

Dear Larkie
Something strange is happening to one of my eyes: it's on the move. Is this a problem?
Prissy Plaque



Dear Prissy
Don't be alarmed. Young plucks have eyes in the usual positions: one on each side of the head. But as you grow, one will move round to join its fellow on the other side of your head (the right side, in fact). By then you will be a fully grown flatfish and can lie hidden on the seabed, looking up at the rest and hoping the rest can't see you.
Larkie



Christopher Kestley, age 5

STOMPING SEABIRDS

Anyone wishing to see some really fancy footwork should hot-foot it along to their nearest colony of blue-footed boobies. There, they may be lucky enough to see the males strutting their stuff in front of the females in the hope of winning a mate. These web-footed wonders should not be misued - they've got sole!



What's the difference between a buffalo and a lion?
A buffalo is an animal that
lives in the savanna.
A lion is an animal that
lives in the savanna.
Lorraine Hodgson,
age 11



HELP!

I visited my old friend, Ibez, a few weeks ago and we went for a walk in his magnificent mountain home. Ibez told me all about his amazing climbing skills. "I climb up slowly, but surely," he said, "never slipping or falling, even on the steepest and most rugged cliffs." But when we reached the top, he looked over the edge, gulped and said, "If only I could get down as easily!"



Samantha Christie

There are 10 butterflies, just like this one, hidden in this magazine. Can you see them all?



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RAFIKI REMEMBERS

Cruel Chameleon

FREE IN PART 74

A terrifyingly large poster of a crocodile that'll keep uninvited pests out of your room!

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SIMBA'S WORLD

AFRICA'S HUGE DESERTS, SUCH AS THE SAHARA, NAMIB AND KALAHARI, ARE EXTREMELY HARSH PLACES TO LIVE IN, YET A NUMBER OF SMALL MAMMALS MANAGE TO SURVIVE THE SEARING HEAT, LACK OF WATER AND FOOD.

Desert mammals

The creatures that live in Africa's deserts and semi-deserts have to cope with a number of problems: the temperature on the surface can be scorching hot during the day and surprisingly cold at night, the small amount of rain that falls evaporates very quickly, there is little shelter and food is often scarce.

Small mammals have a variety of ways of coping with these difficult conditions. Most of them keep out of the midday sun by burrowing or squeezing into rock crevices and only become active when the temperature drops. Those that feed above ground may have to travel long distances to find enough food to survive.

▼ **COOLING OFF**
Gerbils can't survive in temperatures above 45°C for more than about two hours, so they spend the hottest part of the day in humid burrows.



GETTING ENOUGH WATER

In order to survive, desert creatures must not lose more water than they take into their bodies. Animals lose water by evaporation through the skin, by the air they breathe out (which contains water), and in their urine and faeces. Many desert mammals, like gerbils, do not sweat, which cuts out some loss of water. Also, they produce very concentrated urine, which means they don't waste precious body moisture. They rest during the heat of the day in underground burrows where it is cooler.

Gerbils, like other small mammals, can get the water they need from their food. Gerbils feed at night on plant seeds that are as dry as dust during the day, but which have soaked up moisture from the dew by night-time. The gerbils that eat these seeds are able to extract the water from them.

DEALING WITH SAND

Small mammals that live in sandy deserts have ways of dealing with this loose surface. Jerboas, for example, have hairs on the soles of their feet which helps them to get a grip on the sand and protects their pads from getting burned. They also have tufts of hair in their ears, which help to keep the sand out when they're tunnelling. Some kinds of jerboas have a fold of skin which they can pull over their nostrils to protect them from flying sand.

WOW!

Jerboas' back legs are at least four times longer than their front ones. They use the back legs to make leaping getaways from predators. Some can leap straight off the ground to a height of almost 1m.

AN EAR FOR PREDATORS

Most deserts have very few places where small mammals can hide away, so it is very important that they get plenty of warning of predators. Like gerbils, gundis have large inner ears which help them to pick up low-frequency sounds, such as the flapping of a bird's wing. They also warn each other by calling and by thumping their back feet on the ground.

▲ **DIGGING**
Jerboas can seal off their nostrils as they dig their burrows, which can be up to 2m under ground.



▲ Gundis, which look a bit like miniature hyaxes, live in colonies in rocky deserts and semi-deserts in North and East Africa.

KEEPING OUT OF THE HEAT

Rodents like jerboas and gerbils can survive the scorching heat in the middle of the day by digging themselves burrows where the cooler air temperature stays the same all day. They emerge to feed when the temperature above ground begins to drop. Temporary burrows are simple tunnels, but permanent burrows, where they raise their young or hibernate in

winter, have chambers.

Other rodents, like the African mole-rats, spend most of their time underground in well-organized burrows. Grant's desert golden mole, an insect-eating mole-shaped mammal, travels through the sand, just below the surface, by "swimming" with its strong front legs. Gophers keep out of the sun by squeezing into crevices between rocks.



SEEING BY EAR

Golden moles spend most of their lives underground where they rely on their excellent hearing and not their eyes.

A SHADED ROUTE

This long ridge of sand is the underground pathway of a golden mole.

LIFE UNDERGROUND

Most desert mammals forage along the ground for their food, but naked mole-rats find their plant food underground and so can keep out of the sun all the time. They have tube-shaped bodies, with short legs, which make it easy for them to travel along their underground tunnels, and their bare skin is so loose that they can make tight turns when they want to change direction.

They live together in a colony where some members act as workers, digging new tunnels to find food. Others look after the babies of the queen, who is the only female to breed. Other members grow bigger and become non-workers. These can found a new colony or take over when the queen dies.

► Naked mole-rats live in well-organized, underground communities where they share the tasks of tunnelling, finding food and looking after the young.



◀ DESERT HEDGEHOGS European hedgehogs make their leafy nests on the ground. African desert hedgehogs have learned how to dig burrows where they store extra food.



SIMBA SAYS

The only predators that can get into the underground homes of mole-rats are snakes. If a snake, such as a cobra, slides down into a burrow, the worker mole-rats will dig like mad with their big front teeth to make a wall of soil to block off the snake from the main chamber, where the babies are kept.

WOW!

Naked mole-rats can survive in deserts where the surface temperature is over 60°C because the temperature in their humid burrows remains at 29-30°C. If they are digging close to the surface and start to get too hot, they move down to a cooler tunnel.



**HAKUNA
MATATA**
NO WORRIES!

"Uh-oh! Just when I was enjoying myself," snorted Pumbaa, sitting up with a start from his mudbath in the rainforest clearing he had found. The

warthog watched anxiously as several forest elephants moved threateningly towards him. "You'd better get out of that goo,"

said Timon, hiding behind Simba. "Those guys could mean jumbo-sized trouble!" Surprised to see a young lion deep in the forest, the elephants saw Simba as a threat to the

safety of their young. They trumpeted an angry warning. "I can take a hint," whispered Simba. "I guess they don't want a lion like me

anywhere near their family waterhole."

"Shame those jumbos are in no mood for a chat, or I'd explain to them what a purr-fect and gentle pussycat

you are," replied Timon.

"Thanks," said Simba, "but I'll show them I mean no harm by taking off."

"Not without Pumbaa and me, king-cat!" said Timon.

"Yeah! Mud or no mud, it's not safe to stick around here!" agreed Pumbaa.

The next moment, two of the larger elephants charged at Simba. The lion waited a

split-second for Timon to jump on to his back, then he sprang away with a giant leap, the meerkat clinging to his mane. Dripping mud, Pumbaa ran, too. The friends raced for cover, watched by noisy monkeys, squirrels and birds. As Pumbaa crashed blindly through the shadowy forest, he almost bumped into some forest buffalo. The shocked warthog took one glance at the bulky, horned bunch and took off, fast!

"Howling hyenas!" he squealed. "This forest seems kind of crowded!" When Pumbaa rejoined Timon and Simba, he breathlessly blurted out about the buffalo he'd bumped into.

"Maybe next time you'll bump into something useful, like the mystery zebraffe," said Timon, hopefully. "Now remember, it's half-zebra, half-graffe, and it's what we came here to find!"

"It's what you came to find!" said Pumbaa. "Simba and I just tagged along to watch out for your little hide!"

"But I'm telling you, the zebraffe really exists," insisted the meerkat. "Sure it exists! And pigs can fly!" teased the warthog.

"It would help a lot if meerkats could fly," stated Timon, glancing up at the monkeys swinging happily from branch to branch. Then, getting an idea, he jumped from Simba's back and grabbed a long, trailing vine.

"See me swing and do my thing!" yelled Timon, swinging from one vine to another. "With a bird's-eye view of the forest, I'm sure to spot a zebraffe sooner or later!"

"Timon! Come back!" roared Simba. "It's not safe up there - you're a meerkat, not a monkey!"

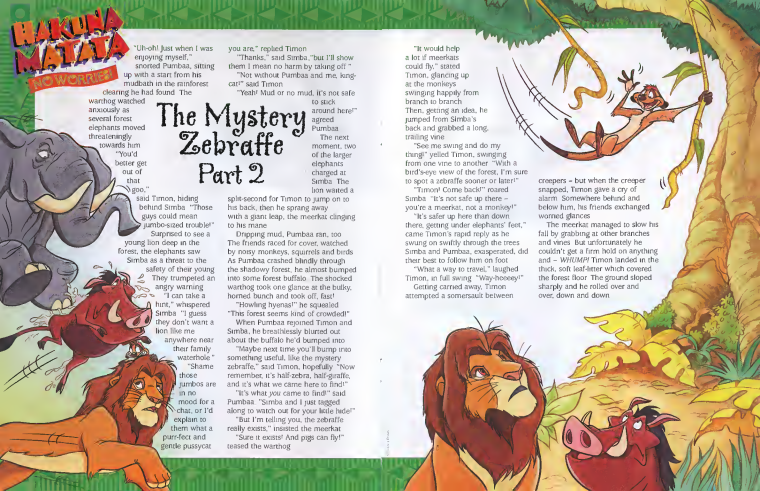
"It's safer up here than down there, getting under elephants' feet," came Timon's rapid reply as he swung on swiftly through the trees. Simba and Pumbaa, exasperated, did their best to follow him on foot.

"What a way to travel," laughed Timon, in full swing. "Way-hooney!"

Getting carried away, Timon attempted a somersault between

creepers - but when the creeper snapped, Timon gave a cry of alarm. Somewhere behind and below him, his friends exchanged worried glances.

The meerkat managed to slow his fall by grabbing at other branches and vines. But unfortunately he couldn't get a firm hold on anything and - WHUMP! Timon landed in the thick, soft leaf-litter which covered the forest floor. The ground sloped sharply and he rolled over and over, down and down.



When Timon finally came to a stop, it seemed that the world was still spinning. At last, he rose dizzily to his feet. In the dim light ahead stood a big, shadowy form. Timon rubbed his eyes and peered harder.

The creature was about the height of a zebra. It had stripes, too, but these were only on the hindquarters and legs. The mysterious forest-dweller looked a bit like a small giraffe, and Timon noticed that he used a very long tongue to strip tender leaves from lower branches.

"I've found it!" Timon yelled out, overjoyed. "It's a real zebra!"

Simba and Pumbaa heard their friend's excited cry and hurried to reach him. But moving through such dense forest was slow, hard work! Meanwhile, when the mystery creature heard Timon, he stopped feeding, raised two large ears and glanced round at the meerkat.

"Do you have to shout?" the creature said, softly. "And who are you calling names?"

Timon peeped cautiously from his hiding place behind a tree.

"No offence meant, friend," he began. "But zebraffe is your name, isn't it?"

"Certainly not," came the quick reply. "Zebraffe, indeed! Whoever heard of anything so silly! My name is Oorak, and I am an okapi!"

"O-car-pee!" repeated Timon. "I guess a guy lives and learns," he added. "I'm Timon, the meerkat, and I'm more pleased to meet you, Mr. Okapi, than you could ever imagine!"

"Well, Timon," replied the okapi, "I'm a pretty shy sort of fellow and I keep myself to myself. So, if you don't mind, I will be on my way."

"Please, don't go yet!" called

Timon, frantically. "At least stay until my pals get here—or they'll never believe that I really have found you!"

Just then, two voices were heard as lion and warthog made their way down the steep, tricky slope.

"Timon, are you down there?" called Pumbaa. Simba, peering ahead, wasn't looking where he was going. He slipped, stubbed a paw on tree root and let out an ear-splitting *RAWOARR!* of pain. His roar made Timon jump and startled the okapi.

"Ssssh! Keep your cool, Simba," replied Timon, struggling with the effort of trying to yell in a whisper. "Hurry up! I've found the zebraffe! Come and have a look at him!"

The meerkat raced back to fetch his friends, boasting, "He looks exactly as I'd heard him described, except that this zebraffe goes by a different name! He told me so. I talked to him, you know. I reckon that this feller is really something!"

"After all this effort to find him, he'd better be!" replied Pumbaa.

As Timon looked back at his pals, he pointed proudly ahead and said, "Read my lips: the zebraffe is *real*! Now, what d'you see?"

"Nothing but forest and then more forest!" replied the puzzled warthog.

Timon spun round. Oorak the okapi had silently slipped away.

The meerkat's jaw sagged and he groaned with disappointment.

"But I saw it!" he said, rushing forward. "It was right here, eating some leaves! We even had a chat!" But the only forest dweller that

anyone could see was a small deer. It fled in panic as soon as he spotted Simba.

"Well, if that's your zebraffe, then I'm a hog-headed hippo!" laughed Pumbaa.

"Oh, let's forget all about rainforest mysteries," snapped Simba, who was feeling hot and tired.

"Why don't we just head straight back to the good old plains. Do I make myself, er, plain?"

Luckily, with the help of some friendly monkeys who showed them a short cut, the three friends were soon back in familiar territory.

As they passed herds of grazing zebra and giraffe, Timon started to speak, but Simba interrupted him.

"Not another word about that mystery zebraffe or whatever it's called, okay?" said Simba, sternly.

"It's not okay," muttered the meerkat sulkily, under his breath, "It's okay!"

THE END

NEXT WEEK: THE GREAT DETECTIVES



Get Drawing

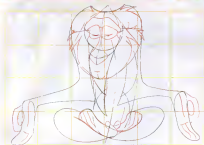
Rafiki



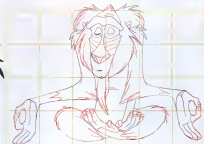
1 Draw a circle with two overlapping egg shapes directly underneath it. Draw a line through the centre of all three shapes. Join the two egg shapes with lines on either side.



2 Draw a cross in the head circle and a heart shape round it for the mane. Draw a long triangle for the muzzle and beard. Starting at the ears, draw a shape for the shoulders, arms and hands. On the lower body, draw shapes for his crossed legs.



3 Put in the muzzle with the nose and mouth. Draw eyes, ears and the mane. Put in lines for the beard. Put lines on the hands for fingers and thumb, and on the feet for toes.



4 Put in details such as the nostrils and lines on the face. Draw in closed eyes. Put nails on the fingers and toes. Add fur to the mane, beard, arms and legs. Rub out all unnecessary lines.



ZAZU'S

MAKE & DO

Expando-Hand

This easy-to-make toy is a great way to surprise your friends. You can put almost anything on the end... and you'll find some great ideas over the page in Zazu Says.

- 1** Use a ruler and pencil to draw six 18cm x 2cm cardboard strips, and two 10cm x 2cm strips. If your cardboard has corrugated paper inside it, make its stripes run lengthways along the strips. Cut out the strips with scissors – or ask an adult to help you use a craft knife.

- 2** Make a pencil mark halfway (9cm) along each long strip. Then make marks 1cm in from both ends of every strip. Using a metal skewer, make small holes through each of these points.

YOU WILL NEED

pencil
ruler
scissors/craft knife
metal skewer
thick, packing box card
10 brass paper fasteners
thick white paper/thin white card
12cm x 30cm of thin fabric/crêpe paper
Copicdex (latex glue)

- 3** Lay out the strips, as shown on the left, with the two shorter strips at the far end. Push a paper fastener through the matching holes at the ends, and at the halfway points of the strips. Open out the fasteners.

- 4** Turn over the construction and press firmly on each of the ten open fasteners to make the joints firm.

- 5** Place your open hand on a piece of thin card. Trace round it with a pencil. Add about 5cm for the wrist. Paint it pink, draw a black outline and fingernails. When dry, cut it out and paint the underside.

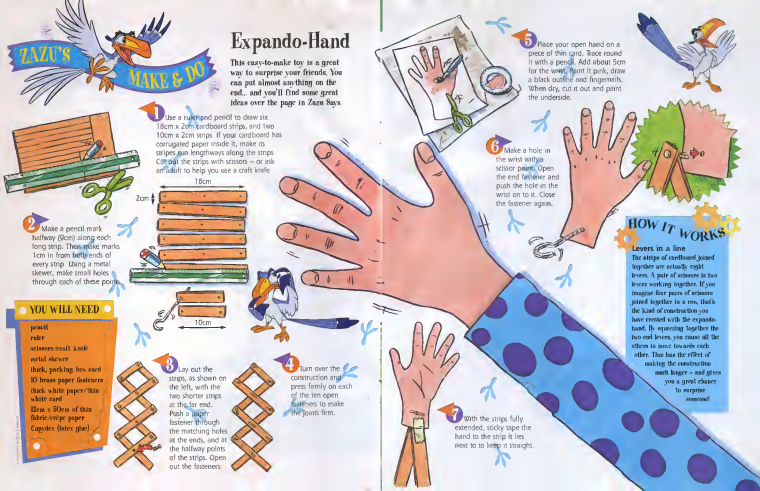
- 6** Make a hole in the wrist with a scissor point. Open the end fastener and push the hole in the wrist on to it. Close the fastener again.

HOW IT WORKS

Levers in a line

The strips of cardboard joined together are actually eight levers. A pair of scissors is two levers working together. If you imagine four pairs of scissors joined together in a row, that's the kind of construction you have created with the expando-hand. By squeezing together the two end levers, you cause all the others to move towards each other. This has the effect of making the construction much longer – and gives you a great chance to surprise someone!

- 7** With the strips fully extended, sticky tape the hand to the strip it lies next to to keep it straight.





8 To make a sleeve for your expando-hand, cut a 12cm x 50cm piece of thin fabric or crêpe paper. Cut a 12cm x 1cm strip of cardboard, then glue the end of the fabric round the strip.



9 With the construction fully extended, glue the stiffened end of the sleeve to the wrist. Now hide behind a sofa or door, so that when you squeeze the lower two strips together, the expando-hand will reach out to surprise whoever you want – you could even make it wave!



Zuzu Says...

To make a striking snake, cut a 7cm x 50cm strip of bright, thin fabric or crêpe paper. Cut one end into a curved point, like a snake's head, then fix a forked tongue, cut from paper or fabric, just beneath the nose. Glue the end of the head to the end of the expando-strips, and the other end to a point, just before the lower paper fastener. Squeeze the ends to make the snake strike! Other ideas could be a cut-out paper frog, a boxing glove, a scary insect, a ghost, a message card saying 'Boo!', 'You're Great!', 'Talk to Me' or whatever you want.



THE ANDES

THE ANDES IS THE LONGEST UNBROKEN MOUNTAIN RANGE IN THE WORLD. IT'S SO LONG THAT WHILE ONE END REACHES TO THE HOT AND HUMID EQUATOR, THE OTHER END IS ONLY A SHORT SWIM AWAY FROM ICY ANTARCTICA.

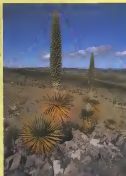


"Do you think chinchillas have chilly chins?"

"Or that flickers flick in the thickets?"



At their northern end, the Andes break up into three lines of mountains. These are separated by deep valleys. It is hot and wet here, and tropical rainforest clothes the valleys and lower slopes. These dense forests are home to jaguars, toucans, sloths and hummingbirds. The higher up you go, the colder it gets, and the mountain peaks are covered with snow throughout the year.



A TALL GUYS
Giant cacti grow the tallest flower spikes in the world – up to 10m high.

► IN THE GROOVE
This U-shaped valley was carved out by a glacier thousands of years ago.



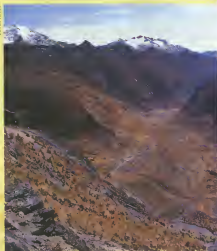
Chinchillas sleep in burrows during the day, but sometimes come out to warm themselves.



Further south, there are two lines of mountains with high plateaux between them. The plateaux form a corridor of dry plains, known as *altiplano* and *puerto*. The plants that live here have to cope with strong sunshine during the day and freezing nights. They are also bent by fierce winds laden with sand.

A PICKING BONES
Condors are vultures – their food is usually dead before they dine.

► CLOUD COVERED
Close to the Equator, the Andes are cloaked with cloud forest.



The spectacled bear, South America's only bear, climbs trees in search of leaves and fruit.



► BOILING OASIS
In the dry Atacama desert, hot water bubbles to the surface at Tatio geysers.



These plains are tough places for animals, made worse by the fact that food is scarce. Lizards, rodents and birds have to find ways of coping with this harsh world. Chinchillas stay hidden in tunnels during the day and rely on their thick coats to keep them warm at night. The cold and the absence of trees also drive some birds, such as flickers and finches, into burrows in the ground.

Larger animals on these plains include cougars, deer and relatives of the camel who live in herds: the vicuñas and guanacos. Soaring above them, always on the look out for the sick or dead, are Andean condors, the largest birds of prey in the world. They save energy by gliding on rising currents of hot air with their 3m wingspans.

The Andes are pitted with lakes and lagoons and, of course, many rivers begin life here. Some of the lakes, Titicaca for instance, are so large that they are really inland seas. These watery places are home to coots, ducks, geese and flamingos.

In the south, the mountains shrink to a single line. There are no high plateaux and the peaks are not as high. Then, after a length of 7200km, the Andes dwindle into a series of islands that are lashed by freezing winds and rough seas. The icy expanse of Antarctica lies a mere 1000km away.



Guanacos live on the lower slopes of the warmer, northern Andes. They eat all kinds of food, especially fruit.



Flickers make burrows in borris. The tunnel leading to the nesting chamber is about 1m long.



THE ANDES

POZZLES

SWINGING HIPPOS

This family of hippos loves wading in water and singing songs. See if you can work out which song they are singing. Read the clues below to find the letters in order. Once you have all 15 of them, the name of the song is spelt out.

- 1 In a ripple of water.
- 2 On a hippo's back.
- 3 On a butterfly's wing.
- 4 In the orange flower.
- 5 On the parrot with a pink chest.
- 6 Underneath the log.
- 7 Inside a hippo's mouth.
- 8 Scratched on a rock.
- 9 At the end of a butterfly's antennae.
- 10 In the yellow flower.
- 11 On the leaf of a bush.
- 12 On the lizard.
- 13 On the parrot with an orange chest.
- 14 Up in the sky.
- 15 On a hippo's ear.

HIPPO RIDDLE

The hippos have made up a riddle. See if you can solve it to find something they enjoy listening to.

- ✓ It first is in drums but not in food.
- ✓ It sounds in chimes but not in crowd.
- ✓ It's there in its solo and also in song.
- ✓ It's fourth in its rhyme but not in song.
- ✓ It's last in its chest and also in cheer.
- ✓ It's whole in something we love to hear.

WHAT'S MISSING?

In this picture, each musical instrument is worth a different number of points. When the numbers are added up, across and down, they come to the totals at the side and bottom. Can you work out how much each instrument is worth and which one is missing?

				10
				20
				12

11 11 13 7

MORE PUZZLES

MUSICAL NOTES

Musical notes are given letters as names. Here are eight notes in the treble clef with their correct staves. Can you read the words round the page made from notes?



BITS AND PIECES

The white pieces that make up the instrument to the right are the same as the black pieces that make up the instrument underneath. Well, not quite! There's one piece in the top one that doesn't appear in the bottom one. Which one is it?



MUSICAL MEDLEY

It takes a group of musicians forty minutes to play their favourite piece. If they play it repeatedly for two hours, how many times will they have played it?

1. + = 3. 5. 7. 9. 11. 13. 15. 17. 19. 21. 23. 25. 27. 29. 31. 33. 35. 37. 39. 41. 43. 45. 47. 49. 51. 53. 55. 57. 59. 61. 63. 65. 67. 69. 71. 73. 75. 77. 79. 81. 83. 85. 87. 89. 91. 93. 95. 97. 99. 101. 103. 105. 107. 109. 111. 113. 115. 117. 119. 121. 123. 125. 127. 129. 131. 133. 135. 137. 139. 141. 143. 145. 147. 149. 151. 153. 155. 157. 159. 161. 163. 165. 167. 169. 171. 173. 175. 177. 179. 181. 183. 185. 187. 189. 191. 193. 195. 197. 199. 201. 203. 205. 207. 209. 211. 213. 215. 217. 219. 221. 223. 225. 227. 229. 231. 233. 235. 237. 239. 241. 243. 245. 247. 249. 251. 253. 255. 257. 259. 261. 263. 265. 267. 269. 271. 273. 275. 277. 279. 281. 283. 285. 287. 289. 291. 293. 295. 297. 299. 301. 303. 305. 307. 309. 311. 313. 315. 317. 319. 321. 323. 325. 327. 329. 331. 333. 335. 337. 339. 341. 343. 345. 347. 349. 351. 353. 355. 357. 359. 361. 363. 365. 367. 369. 371. 373. 375. 377. 379. 381. 383. 385. 387. 389. 391. 393. 395. 397. 399. 401. 403. 405. 407. 409. 411. 413. 415. 417. 419. 421. 423. 425. 427. 429. 431. 433. 435. 437. 439. 441. 443. 445. 447. 449. 451. 453. 455. 457. 459. 461. 463. 465. 467. 469. 471. 473. 475. 477. 479. 481. 483. 485. 487. 489. 491. 493. 495. 497. 499. 501. 503. 505. 507. 509. 511. 513. 515. 517. 519. 521. 523. 525. 527. 529. 531. 533. 535. 537. 539. 541. 543. 545. 547. 549. 551. 553. 555. 557. 559. 561. 563. 565. 567. 569. 571. 573. 575. 577. 579. 581. 583. 585. 587. 589. 591. 593. 595. 597. 599. 601. 603

From that day on, Mantus had a flac head, which made his trips to the river much easier. And since Chameleon could only manage to drink a few drops at a time, one pot lasted all day. What's more, since Chameleon was so fond of his beautiful colouring, he tried very hard not to lose his temper and turn grey.



☎ 771-555-0670



